INNOfill

Innovative RF Filler Injection System

User's Manual

Model : **INNOFILL**

DOSIS

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- CONVENTIONS Used in this Manual

The following conventions in the form of notes, cautions and warnings are used in this manual:

**** Note***

The content o offers general information that is important to keep in mind.

**** Caution***

A *Caution* alerts the user to the possibility of a problem with the device associated with its use or misuse. Such problems include system malfunction, failure, and damage to the system or other property. The caution statement includes a precautionary action that should be taken to avoid the hazard.

**** Warning***

A *Warning* alerts the user to the possibility of injury, death, or serious adverse reactions associated with the use or misuse of the system.

Note

Before the usage of this equipment, safety precautions and operating procedures should be acknowledged thoroughly.
In general all laser devices might cause side-effects and accidents in case of improper use.
Please be careful about all potential risks of danger and conduct all necessary precautionary actions according to this manual.
Please also be noted that this equipment should be considered for all repairing works, upgrading and other necessary technical works by our instruction.

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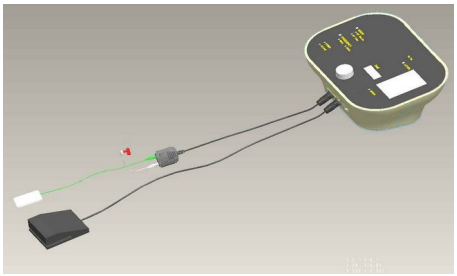
1. Description of product

A. System features

INNOFILL system uses high frequency current for micro coagulation. This system is composed with main body, Electrode needle for single use, Bovie plate for single use, electrode cable, 2P cable, foot switch, and power cable.

B. System composition

1) Picture of product

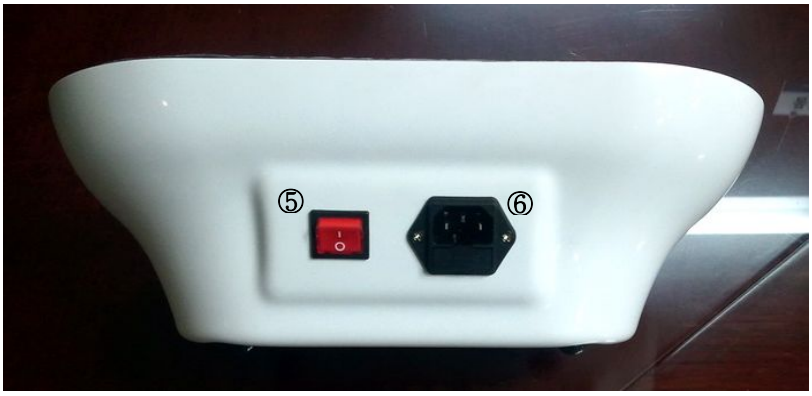


[Picture of product]

2) Description of external composition

(1) Front and rear side of product

[Front side]



[Rear side]

No.	Name	Function
①	2P cable connection port	Connection port for 2P cable.
②	Foot switch connection port	Connection port for foot switch. Foot switch controls output power.
③	Control knob	Knob for function and mode control.
④	Display	Upper side of the system. It displays system function, condition, and other information.
⑤	Main power switch	Control supply of main power.
⑥	Power cable connector	Connection port for power cable. (Inlet)

(2) Left and right / upper and bottom side of product

[Left side]

[Right side]

[Upper side]

[Bottom side]

(3) Display

Upper side of the system. It displays system function, condition, and other information.

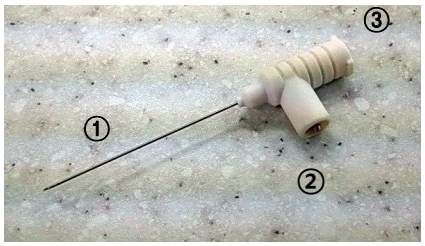
[Display]

No.	Name	Function
①	Control Knob	Knob for function and mode control.
②	Level	Displays output power of the system.
③	Mode	Indicates functional mode.
④	Frequency	Indicates frequency of the output power.
⑤	Time/Error	Displays operational time. If the system error is occurred, it displays error message. (ex. E1 or E2)
⑥	Power	Indicates power supply condition. If the red LED is ON, system main power is ON.
⑦	Standby/Ready	Indicates Standby/Ready mode. If the green LED is ON, it indicates Standby mode. If the red LED is ON, it indicates Ready mode.
⑧	Active	Indicates output power condition. If the blue LED is ON, it indicates output power is working.

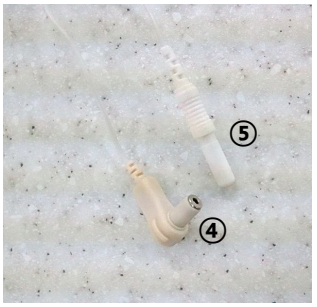
3) Accessories

This system is composed with main body, Electrode needle for single use, Bovie plate for single use, electrode cable, 2P cable, foot switch, and power cable.

(1) Electrode needle (For single use) / Electrode cable



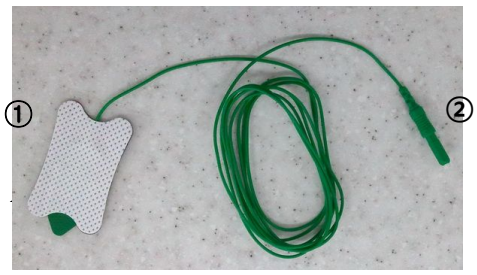
[Electrode needle]



[Electrode cable]

No.	Name	Function
①	Electrode needle	Electrode needle for single use. This needle will be inserted into the skin.
②	Connection port for electrode cable	Connection port for electrode cable.
③	Connection port for syringe	Connection port for syringe.
④	Connector for electrode needle	Connect to electrode needle.
⑤	2P connector 1	Connect to 2P cable.

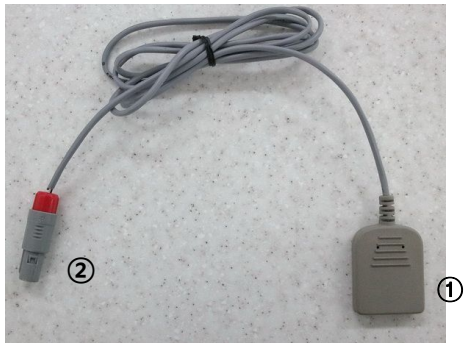
(2) Bovie plate (For single use)



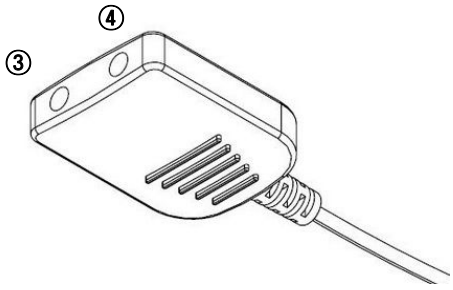
[Bovie plate]

No.	Name	Function
①	Bovie plate	Bovie plate for single use.
②	2P connector 2	Connect to bovie plate cable at the 2P connector.

(3) 2P cable



[2P cable]



[2P connection port Assy']

No.	Name	Function
①	2P connection port Assy'	Connection port assembly for electrode needle and bovie plate.
②	Connector for main body	Connect to main body.
③	Bovie plate connection port (Green arrow marking)	Connection port for bovie plate.
④	Electrode connection port (Red arrow marking)	Connection port for electrode needle.

(4) Power cable / Foot switch

[Power cable]

[Foot switch]

No.	Name	Function
①	Power cable	Cable for main power supply.
②	Foot switch	Controls output power with user's feet.

C. List of components

1) Main body ---------- 1ea
2) Electrode needle for single use ---------- 1ea
3) Electrode cable ---------- 1ea
4) Bovie plate for single use ---------- 1ea
5) 2P cable ---------- 1ea
6) Foot switch ---------- 1ea
7) Power cable ---------- 1ea

2. Operating instruction

A. Preparations before operation

- Preparations before operation

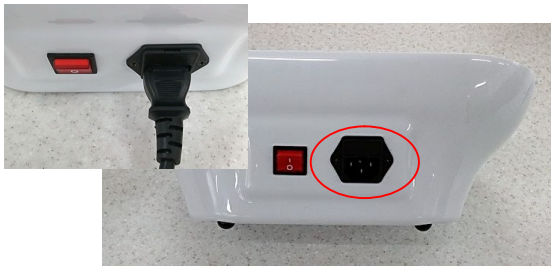
1) Use rated current and voltage for this system.
2) Install electrode needle, syringe, and bovie plate.
3) Install foot switch.
4) Connect power cable.
5) Turn on the main power switch.
6) Read and fully understand user's manual.

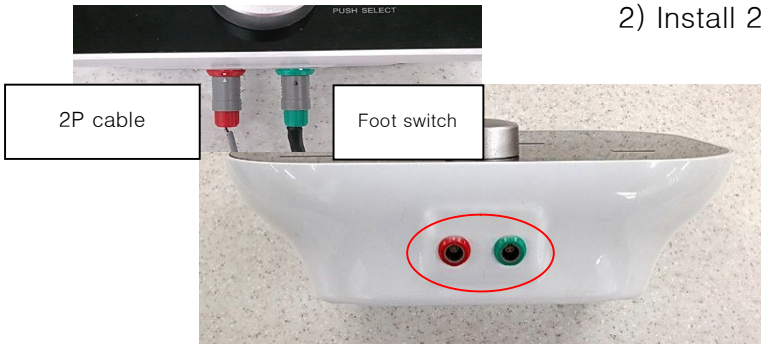
- Checking before operation

1) Syringe and electrode needle is sterilized, for single use. Take out these just before operation, and check its external condition(pollution or crack), then install.
2) Bovie plate is sterilized, for single use. Take out these just before operation, and check its external condition(pollution or crack), then install.
3) Check connecting condition of electrode, bovie plate, and foot switch cable.

B. Installation

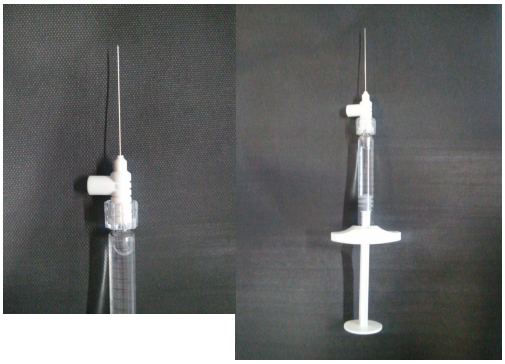
1) Install power cable at the connector.





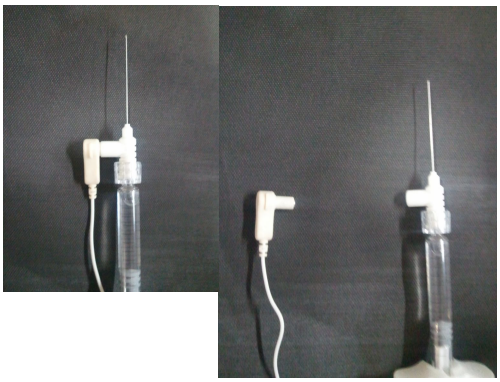
2) Install 2P cable and foot switch at the connector.

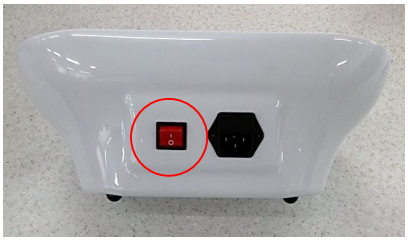
3) Install bovie plate(white) and electrode(green) cable at the 2P cable connector.



4) Assemble electrode needle and syringe tightly. If it is loose, filler may be leaked or electrode needle may be sprung.

5) Connect electrode needle and electrode cable.





6) Turn on main power switch.

7) See the **C. Operating procedure**, for operation.

C. Operating procedure – How to use INNOFILL system

1) Operating procedure

[조작화면]

No.	Name	Function
①	Control Knob	Knob for function and mode control.
②	Level	Displays output power of the system.
③	Mode	Indicates functional mode.
④	Frequency	Indicates frequency of the output power.
⑤	Time/Error	Displays operational time. If the system error is occurred, it displays error message. (ex. E1 or E2)
⑥	Power	Indicates power supply condition. If the red LED is ON, system main power is ON.
⑦	Standby/Ready	Indicates Standby/Ready mode. If the green LED is ON, it indicates Standby mode. If the red LED is ON, it indicates Ready mode.
⑧	Active	Indicates output power condition. If the blue LED is ON, it indicates output power is working.

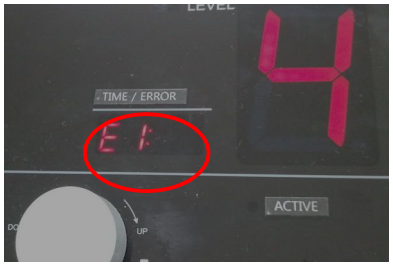
- Adjustable menu can be switched in order of Mode → Frequency → Level, whenever pressing control knob.

- Go to each menu and turn control knob, then user can select and adjust each menu. After then press control knob again, system will go to next menu.

- Go to LEVEL menu after set up MODE and FREQUENCY menu. Then user can adjust output power with turning control knob. Then press control knob. System condition will be switched into READY mode(red LED) from STANDBY(green LED) mode.
At this moment, if user press foot switch, output power will be generated. Blue ACTIVE LED will indicate it. If user press control knob again, system will be switched into STANDBY mode, LEVEL menu will be adjustable.

- If the system is on LEVEL menu, press control knob for 2 seconds, system will be switched into MODE menu again.

※ If the connecting condition of foot switch and 2P cable is not correct, error message "E1" and warning buzzer will be generated. In this case, check connecting condition of foot switch and 2P cable. If the error message and buzzer still remain even connecting condition has no problem, please contact local dealer or manufacturer and request spare or checking service.



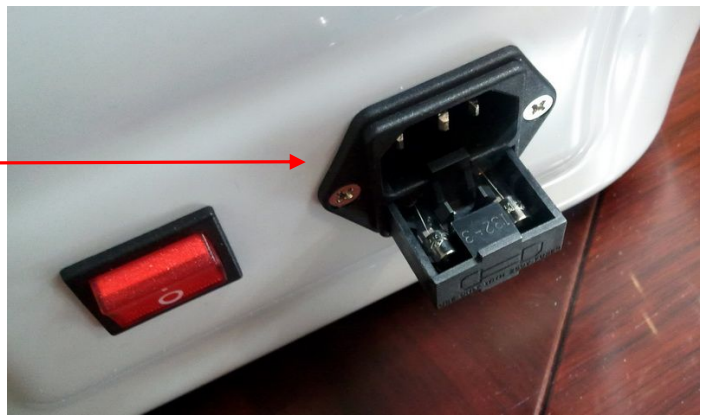
<Close of system>

- Confirm ACTIVE indicator LED is off, and turn off main power switch and put off power cable.

※ Caution: Regardless of each menu setting, if main power is reset, every menu and its parameter will be initialized. (Level 0)

<How to exchange fuse>

- INNOFILL system adopts LITTLE AC 250V 2A type fuse.

	
Power cable connector with fuse holder at the backside of system. (red circle)	Open fuse holder, and insert 2 little AC 250V 2A type fuse.

Caution !

Before removing a fuse, disconnect the unit from the power source by turning off main power switch and pull out the power cable from the receptacle.

3. Specification of INNOFILL system

Rated voltage		AC 220[V]
Rated frequency		60[Hz]
Power consumption		18[VA]
Main frequency		1 [Mhz] ± 10[%] or 2 [Mhz] ± 10[%]
Output mode		V p-p30[ ], 500[Ω]
Buzzer sound level	Functional	Over 45[dB A]
	Warning	Over 65[dB A]
Protection class and type for electrical shock		Class 1 equipment, Type BF applied part
Operating condition		Temperature: +10 ~ +40[℃] Humidity: Below 30 ~ 75[%]
Storage condition		Temperature: -20 ~ +60[℃] Humidity: Below 95[%]

4. Checking and cautions

A. Storage

1. Avoid to use in high humidity or wet area.

2. Operating condition
- Temperature: +10[℃]～+40[℃]
- Humidity: 30% r.H～75% r.H
- Atmospheric pressure: 700[h㎩]～1060[h㎩]

3. Storage condition

- Temperature: -20[℃]～+60[℃]

- Humidity: Below 95% r.H

- Atmospheric pressure: 700[h㎩]～1060[h㎩]

B. General cautions

1. INNOFILL system must be operated under the proper control of trained and certified medical doctor.

2. Before operating this system, user must read and be fully aware of the manual which issued by manufacturer.

3. Watch the condition of device and patient before operation.

4. Do not shock the system while operating.

5. This system should not be operated in the presence of a flammable anesthetic or volatile substance such as alcohol, gasoline or solvent. Flammable curtains, operating gowns, gauzes or others should be kept away from the passage of the rays. Nonflammable materials and instruments, fire-resistant operating curtains and gowns should be used. Fire extinguishers should be ready at hand near the system.
6. INNOFILL unit generates high voltage in the main body. The main body should be checked if it is properly closed or not before operation so as to avoid

damage. Nobody except the technician who is authorized to dissemble or service the unit could remove or dissemble any panel.

7. Only the proper power source, sockets and plugs for the unit should be used. The sockets and plugs should be sound ones. Be sure to pull out the power cord from the socket not by the line but by the plug when removing it.

8. This unit is grounded through the internal grounding at the plug of the power cord. To ensure grounding reliability which is necessary for the safe operation, always plug the power cord into a properly wired power receptacle. Additional grounding can be installed through the external earth connection terminal.

9. Use only regular fuses specified on the unit to avoid fire hazard. Fuse type is LITTLE AC 250V 20A.

Warning !

1. Any application, management or progress which is different from this manual may cause exposure to harmful radiation. So whoever operates this system must be fully aware of this manual, and familiar with all safety rules and operating procedures.

2. Any malfunction which is caused by inadequate using or careless management of this system is not applicable of warranty. Hence, every user who wants to apply another use which is not stated on this manual should contact DOSIS M&M Co., Ltd.

C. Cautions while operation

1. Electric spark may be cause of the fire. So this system should not be operated in the presence of a flammable anesthetic or volatile substance such as alcohol, gasoline or solvent.

2. Bovie plate should be adhered tightly on the skin. If there is some space between bovie plate and skin, patient may have slight burn on the skin.

3. When electrode needle is not used, isolate it from patient.

4. Do not use with patient who has cardiac pacemaker.

5. Turn off the output power while take out the electrode needle from skin. If the electrode needle is taken out when output power is working, patient may have slight burn on the skin.

6. Check the condition of grounding, and do not touch power cable with moist hand.

7. If the system is out of order, take emergency measures and contact local dealer or manufacturer.

D. Checking and maintenance after operation

1. Electrode needle and bovie plate is for single use only. Do not reuse and discard.

2. Clean external case with soft cloth, neutral detergent and alcohol.

3. Every cable should not be twisted or bent.

4. Fulfill periodical check and maintenance with its manufacturer.

5. Remove power cable if the system is not used for a long period.

6. If equipment is failed, do not repair by yourself, and request the service from nearby seller or manufacturer.

7. Do not open equipment.

8. Keep clean the system with periodical cleaning by periodical working schedule.

9. Keep clean surroundings around the system with vacuum cleaner.

Warning !

Do not use on injured skin.